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ABSTRACT

This competency-based module uses the Ocean County (New Jersey) Vocational-Technical Schools curriculum-infused model for infusing basic skills instruction into vocational education. The model demonstrates the relationship of vocational skills to communication, mathematics, and science. The document begins with a philosophy statement; preface; a table that explains the number of hours required for academic credit in various programs and the number of those hours that are devoted to basic skills and vocational activities; matrices that show in which courses specific basic skills are taught; a list of objectives; and an explanation of student activities. The rest of the document consists of matrices that describe the relationship of vocational skills to basic skills within the printing program. These pages are organized by instructional unit and the topics within them. For each topic and associated task(s) are listed the theories and the communication, math, and science skills covered. Also listed are the expected student outcomes. The 14 units are: orientation; safety; introduction to printing; measurement; typesetting; paste-up; process camera; Itek 430 camera; stripping; plate making; offset duplicator operation; offset press operation; platen press operation; and finishing operations. (KC)

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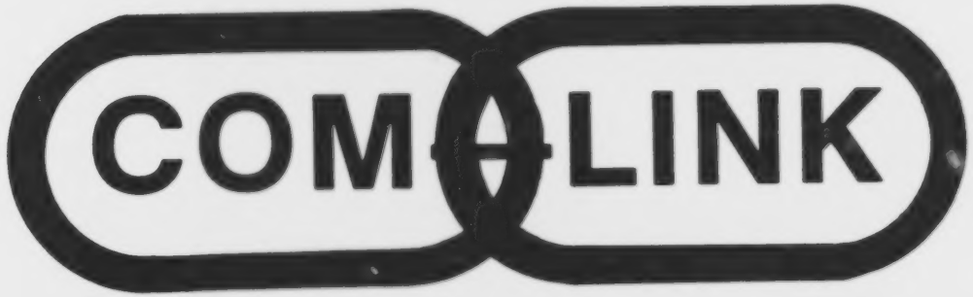
Competency Based Vocational Curricula



With Basic Skills And Academic Linkages

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And

Ocean County Vocational-Technical School

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Ocean County Vocational-Technical School

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PHILOSOPHY OF EDUCATION

The Ocean County Vocational-Technical Education Program should consist of those courses, activities and experiences which are designed to prepare students for a successful entrance in a given field of work. The program should be based upon an analysis of the worker needs of the field of work, the opportunities and requirements for entrance, and the particular characteristics and needs of the students.

We believe that:

The school should educate and train the students to live effectively in our ever-changing world.

The school should provide, for each student, intensive training toward general and specific job objectives, and setting standards of performance in keeping with the requirements of that particular field of work.

All students should evidence the interest, aptitude, and ability to profit from the specialized instruction, and this should be a condition of entrance into or continuance in a given field of work.

Equal attention should be given in the school program to develop sound character, good citizenship, ability to think critically, and maintain good mental and physical health.

The school must be constantly striving to fulfill its ultimate purpose; that of serving the students and the community. The school should give careful consideration to the needs, interests, and capacities of the students and the educational and technical background, experience, training, and professional interest of the professional staff as they develop a working philosophy of education.

PREFACE

The curriculum format employed by this project is competency based and utilizes the Ocean County Vocational-Technical Schools' curriculum infused model for the teaching of basic skills as part of vocational education. The design demonstrates the relationship of vocationally related skills to communication, mathematics and science knowledge. Proficiences with regard to student outcomes cannot be achieved without mastery in related academic areas. All student outcome objectives are predicated upon entry level skills which reflect the dictates of the job marketplace and industry. In addition, basic skills matrices developed by the district are included. The totality of this package is designed to facilitate the vocational teaching process and to enchance the learning experiences of our students.

POTENTIAL OPPORTUNITY FOR AWARDING ACADEMIC CREDITS FOR STUDENTS AT OCEAN COUNTY VOCATIONAL-TECHNICAL SCHOOL

450 hours - 1 year course at O.C.V.T.S.
900 hours - 2 year course at O.C.V.T.S.
1000 hours - 2 year Beauty Culture course

120 hours per year needed for 5 credits
60 hours per year needed for 2½ credits

COURSE	TOTAL HOURS	HOURS SPENT ON COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
AIR CONDITIONING, REFRIGERATION AND HEATING	900	140	120	120	520
AUTO BODY REPAIR	900	130	120	125	525
AUTOMOTIVE MECHANICS	900	150	120	120	510
AUTOMOTIVE AND DIESEL ENGINE REBUILDING	900	216	126	125	433
BEAUTY CULTURE I AND II	1000	240	120	130	515
BUILDING TRADES	900	135	120	130	515
BUSINESS RELATIONS - MEDIA/MODELING	450	200	60	40	150
CHILD CARE AIDE	900	240	120	122	418
COMMERCIAL ART AND PRINTING	900	120	215	75	580
COMMERCIAL BUILDING CONSTRUCTION (MASONRY)	900	130	125	130	515

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COURSE	TOTAL HOURS	HOURS SPENT ON COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
COMMERCIAL PHOTOGRAPHY & TELEVISION PRODUCTION	900	150	125	80	545
CUSTOM CABINETMAKING	900	130	120	60	590
DENTAL ASSISTING	450	168	65	77	140
DESIGN DRAFTING	900	135	150	165	450
ELECTRICAL TRADES	900	106	120	124	550
FASHION MERCHANDISING	450	200	60	40	150
FOOD SERVICES	900	206	132	125	437
INDUSTRIAL AUTOMATION AND ELECTRONICS	900	129	140	132	499
INTERIOR DESIGN	900	210	130	120	440
LANDSCAPING AND GREENHOUSE TECHNOLOGY	900	125	125	175	475

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900 hours - 2 year course at O.C.V.T.S.
1000 hours - 2 year Beauty Culture course

120 hours per year needed for 5 credits
60 hours per year needed for 2½ credits

COURSE	TOTAL HOURS	HOURS SPENT ON COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
MARINE ENGINE AND BOAT SERVICES	900	164	120	125	491
MEDICAL OFFICE RECEPTIONIST/ASSISTANT	450	173	60	77	140
MEDICAL SKILLS AND RELATED HEALTH CAREERS	450	135	65	125	125
MEDICAL SKILLS (ADVANCED)	450	125	60	125	140
PLUMBING AND HEATING	900	140	120	120	520
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	900	125	130	60	585
T.V. AND COMPUTER REPAIR	900	125	150	175	450
WELDING	900	135	120	100	545

COMMUNICATION SKILLS

Listed below are all courses offered at the Ocean County Vocational-Technical School.
The asterisk indicates that the topic is studied in that curriculum.

COURSE	Functional Reading Skills	Vocabulary	Identifying Main Ideas	Meanings in Context	Inferences	Fact/Opinion Distinction	Signal Words	Parts of Text-book/Manual	Following Directions	Outlining and Note Taking	Interpretation of Maps and Graphs	Interpretation of Diagrams	Test Taking Skills	Expository Writing Skills	Problem Solving	Spelling	Oral Communications	Study Skills	Resume Writing	Job Application Skills
AIR CONDITIONING, REFRIGERATION AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AUTO BODY REPAIR	*	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
AUTOMOTIVE MECHANICS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AUTOMOTIVE AND DIESEL ENGINE REBUILDING	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BEAUTY CULTURE I AND II	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BUILDING TRADES	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*
CHILD CARE AIDE	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
COMMERCIAL ART AND PRINTING CAREERS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
COMMERCIAL BUILDING CONSTRUCTION (MASONRY)	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
COMMERCIAL PHOTOGRAPHY AND TELEVISION PRODUCTION	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CUSTOM CABINETMAKING	*	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
DENTAL ASSISTING	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*

COMMUNICATION SKILLS - CONTINUED

COURSE	Functional Reading Skills	Vocabulary	Identifying Main Ideas	Meanings in Context	Inferences	Fact/Opinion Distinction	Signal Words	Parts of Text-book/Manual	Following Directions	Outlining and Note Taking	Interpretation of Maps, Graphs and Charts	Interpretation of Diagrams	Test Taking Skills	Expository Writing Skills	Problem Solving	Spelling	Oral Communications	Study Skills	Resume Writing	Job Application Skills
DESIGN DRAFTING	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ELECTRICAL TRADES	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FASHION MERCHANDISING	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
FOOD SERVICES	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
INDUSTRIAL AUTOMATION AND ELECTRONICS	*	*	*		*	*			*	*	*	*	*	*	*	*	*	*	*	*
INTERIOR DESIGN	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LANDSCAPING AND GREENHOUSE TECHNOLOGY	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
MARINE ENGINE AND BOAT SERVICE	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MEDICAL OFFICE RECEPTIONIST/ASSISTANT	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
MEDICAL SKILLS AND RELATED HEALTH CAREERS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MEDICAL SKILLS (ADVANCED)	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
PLUMBING AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
T.V. AND COMPUTER REPAIR	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
WELDING	*	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

MATHEMATICS SKILLS

Listed below are all courses offered at the Ocean County Vocational-Technical School. The asterisk indicates that the topic is studied in that curriculum.

COURSE	Whole Numbers	Common Fractions	Decimals	Percentages	Weights and Measurements	Ratio and Proportion	Powers and Roots	Formulas	Estimating	Geometry	Basic Trigonometric Functions	Graphs
AIR CONDITIONING, REFRIGERATION AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*
AUTO BODY REPAIR	*	*	*	*	*	*	*	*	*	*		*
AUTOMOTIVE MECHANICS	*	*	*	*	*	*	*	*	*			*
AUTOMOTIVE AND DIESEL ENGINE REBUILDING	*	*	*	*	*	*	*	*	*	*		*
BEAUTY CULTURE I AND II	*	*	*	*	*	*	*	*	*	*	*	*
BUILDING TRADES	*	*	*	*	*	*	*	*	*	*	*	*
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL	*		*	*		*			*			*
CHILD CARE AIDE	*	*	*	*	*	*		*	*	*	*	*
COMMERCIAL ART AND PRINTING CAREERS	*	*	*	*	*	*		*	*	*		*
COMMERCIAL BUILDING CONSTRUCTION (MASONRY)	*	*	*	*	*	*	*	*	*	*	*	*
COMMERCIAL PHOTOGRAPHY AND TELEVISION PRODUCTION	*	*	*	*	*	*	*	*	*	*	*	*
CUSTOM CABINETMAKING	*	*	*	*	*	*	*	*	*	*	*	*
DENTAL ASSISTING	*	*	*	*	*	*		*	*			*

MATHEMATICS SKILLS - CONTINUED

COURSE	Whole Numbers	Common Fractions	Decimals	Percentages	Weights and Measurements	Ratio and Proportion	Powers and Roots	Formulas	Estimating	Geometry	Basic Trigonometric Functions	Graphs
DESIGN DRAFTING	*	*	*	*	*	*		*	*	*	*	*
ELECTRICAL TRADES	*	*	*	*	*	*	*	*	*	*	*	*
FASHION MERCHANDISING	*	*	*	*	*	*		*	*	*		*
FOOD SERVICES	*	*	*	*	*	*		*	*	*		*
INDUSTRIAL AUTOMATION AND ELECTRONICS	*	*	*	*	*	*		*	*	*	*	*
INTERIOR DESIGN	*	*	*	*	*	*		*	*	*		*
LANDSCAPING AND GREENHOUSE TECHNOLOGY	*	*	*	*	*	*		*	*	*	*	*
MARINE ENGINE AND BOAT SERVICE	*	*	*	*	*	*		*			*	*
MEDICAL OFFICE RECEPTIONIST/ASSISTANT	*	*	*	*	*	*	*	*	*	*		*
MEDICAL SKILLS AND RELATED HEALTH CAREERS	*	*	*	*	*	*		*	*	*	*	*
MEDICAL SKILLS (ADVANCED)	*	*	*	*	*	*		*	*	*	*	*
PLUMBING AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	*	*	*	*	*	*	*	*			*	*
T.V. AND COMPUTER REPAIR	*	*	*	*	*	*	*	*		*	*	*
WELDING	*	*	*	*	*	*		*	*	*	*	*

SCIENCE SKILLS

Listed below are all courses offered at the Ocean County Vocational-Technical School. Those listed as "Not Available" do not offer enough hours to qualify for credits in your high school. However, we have noted the skills covered. Those listed with an asterisk after the title are eligible. The asterisk indicates that the topic is studied in that curriculum.

	HUMAN ANATOMY						ASTRONOMY			CHEMISTRY			PHYSICS					ECOLOGY				
COURSE	Cellular Theory	Skeletal System	Muscles	System of Body	Diseases	Psychology	Solar System	Gravity	Weather	Matter	Chemical Reactions	Applied Chemistry	Light	Magnetism	Heat	Magnetism and Electricity	Nuclear Energy	Botany	Food Production	Fuels	Nutrition	Waste Disposal
AIR CONDITIONING, REFRIGERATION AND HEATING							*	*	*	*	*	*		*	*	*				*	*	
AUTO BODY REPAIR								*	*	*	*	*	*	*	*					*		*
AUTOMOTIVE MECHANICS								*		*	*	*	*	*	*	*				*		
AUTOMOTIVE DIESEL AND ENGINE REBUILDING								*		*	*	*		*	*	*	*			*		*
BEAUTY CULTURE I AND II	*	*	*	*	*	*				*	*	*	*		*	*					*	
BUILDING TRADES							*	*	*	*	*	*	*		*	*		*		*		
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL	N	* O	* T	* A	V	* A	I	L	A	B	L	E										
CHILD CARE AIDE	*	*	*	*	*	*			*		*	*		*	*			*	*		*	*
COMMERCIAL ART AND PRINTING CAREERS	N	O	T	A	V	A	I	* L	A	* B	* L	* E	*		*	*						*
COMMERCIAL BUILDING CONSTRUCTION (MASONRY)	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*		*		*	*	*
COMMERCIAL PHOTOGRAPHY AND TELEVISION PRODUCTION	N	O	T	A	V	* A	I	* L	A	* B	* L	* E	*		*	*						*
CUSTOM CABINETMAKING	* N	O	T	A	V	A	I	* L	A	* B	* L	* E			*			*				
DENTAL ASSISTING	*	*	*	*	*	*				*	*	*	*								*	*

SCIENCE SKILLS - CONTINUED

	HUMAN ANATOMY						ASTRONOMY			CHEMISTRY			PHYSICS					ECOLOGY				
COURSE	Cellular Theory	Skeletal System	Muscles	System of Body	Diseases	Psychology	Solar System	Gravity	Weather	Matter	Chemical Reactions	Applied Chemistry	Light	Magnetism	Heat	Magnetism and Electricity	Nuclear Energy	Botany	Food Production	Fuels	Nutrition	Waste Disposal
DESIGN DRAFTING							*	*	*	*		*	*		*	*	*			*		*
ELECTRICAL TRADES							*	*	*	*	*		*	*	*	*	*		*			
FASHION MERCHANDISING	*	*	*	*		*		*		*	*	*	*								*	
FOOD SERVICES					*	*		*	*		*	*	*		*				*		*	*
INDUSTRIAL AUTOMATION AND ELECTRONICS								*		*			*	*	*	*	*			*		
INTERIOR DESIGN		*	*			*	*	*	*	*	*	*	*		*	*						
LANDSCAPING AND GREENHOUSE TECHNOLOGY							*	*	*		*	*	*		*	*		*	*	*	*	*
MARINE ENGINE AND BOAT SERVICE								*	*	*	*	*	*	*	*	*		*		*		
MEDICAL OFFICE RECEPTIONIST/ASSISTANT	N	* O	* T	* A	* V	* A	I	L	A	B	* L	E										*
MEDICAL SKILLS AND RELATED HEALTH CAREERS	*	*	*	*	*	*		*		*	*					*			*		*	*
MEDICAL SKILLS (ADVANCED)	*	*	*	*	*	*		*		*	*					*			*		*	*
PLUMBING AND HEATING					*		*	*	*	*	*	*			*	*		*		*		*
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	N	O	T	A	V	A	I	* L	A	* B	* L	* E	*	*	*	*				*		*
T.V. AND COMPUTER REPAIR										*	*	*	*	*	*	*				*		
WELDING								*		*	*	*	*	*	*	*				*		

COURSE OBJECTIVES

1. To prepare students with entry level skills, abilities and knowledge for employment in the printing field.

2. To present 900 hours of instruction and practice in the printing program in accordance with the course curriculum and skill profile outline.

3. To provide a detailed summary evaluation of the proficiency achieved by each student representing the most important content areas presented in the printing program skill profile.

4. To help each student develop positive attitudes and ideals related to their occupation in the printing field and understand their own capabilities and potential.

5. To instill in each student the need to plan for their professional growth through continuous learning in their chosen occupation.

STUDENT ACTIVITIES

All students enrolled in the Ocean County Vocational-Technical School are encouraged to join Vocational Industrial Clubs of America (VICA). Student activities are infused into each program. Each building has a student government and a student activities program separate from VICA. Additionally, students from each center and every class are encouraged to participate in the VICA Leadership and Job Demonstration Contests which begin in the centers and radiate throughout the district as Ocean County Vocational-Technical School inter school winners are chosen.

Student activities emphasize the basic precepts of VICA, as well as the basic tenets of democracy. Within the context, each of our programs teaches the dignity of work, high standards in trade ethics and safety, and a belief in the free enterprise economic system.

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UNIT: ORIENTATION

TOPIC: STUDENT HANDBOOK

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. School rules and regulations	A. Student rights and responsibilities B. Student grievance procedures C. Student expectations D. School code of discipline E. Attendance and graduation policy F. Student transfers G. Grading system H. Accidents I. Bedside instruction J. Cooperative Industrial Education (C.I.E.) K. Driving policy L. Drug and alcohol policy M. Early dismissal procedures N. Lockers O. Driver permits P. School closing procedures Q. Smoking R. Student progress reports S. Telephones T. Theft U. Tools and equipment V. Vocational Industrial Clubs of America (VICA)	A. Note taking skills B. Filling out forms C. Oral communications D. Test taking skills E. Functional reading skills (Student Handbook)			A. The student will know what is expected of him/her for the school year in order to promote effective learning conditions Written test B. The student will know the standards to be met within the school and classroom Written test

UNIT: ORIENTATION - CONTINUED

TOPIC: STUDENT REQUIREMENTS

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Understanding school requirements	A. Attendance B. Request for make-up work C. Extra help with assignments or lessons D. Requirements for each marking period E. Notebooks, etc. F. Field trips G. Daily grading system H. Lockers I. Student dress code J. Daily cleaning routines	A. Note taking skills B. Filling out forms C. Oral communications D. Test taking skills E. Functional reading skills F. Vocabulary G. Spelling	A. Measurement - forms B. Addition C. Subtraction D. Multiplication E. Division F. Fractions G. Decimals		A. The student will know what is expected of him/her for the school year in order to promote effective learning conditions Written test B. The student will know the standards to be met within the school and classroom Written test

UNIT: ORIENTATION - CONTINUED

TOPIC: CAREER OPPORTUNITIES

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Understanding career opportunities in the printing field	A. Establishments 1. Newspapers 2. Periodicals 3. Book publishing 4. General commercial printing 5. Business firms B. Job activities 1. Typesetting 2. Paste-up artist 3. Camera man 4. Stripper 5. Platemaker 6. Press operator 7. Bindry worker C. Associated job activities in the printing industry 1. Estimator 2. Salesman 3. Teaching 4. Shipping and receiving 5. Graphic arts supplier	A. Note taking skills B. Oral communications C. Functional reading skills D. Vocabulary E. Spelling F. Test taking skills			The student will be able to demonstrate a knowledge of the career opportunities in the printing field

UNIT: SAFETY

TOPIC: PROCEDURES

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Understanding safety procedures in the printing area	A. Always ask permission before using any tools or equipment even if you have used it before B. NEVER throw a tool, pencil or anything to another person C. Read all instructions on all equipment solvents before using them D. Know location of all safety shut-off switches E. Know location of fire extinguishers F. Know location of eye wash and first aid kit	A. Note taking skills B. Functional reading skills C. Oral communications D. Vocabulary E. Spelling F. Test taking skills G. Following directions			The student will be able to demonstrate an understanding of proper safety procedures in the printing shop

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilization of tools and solvents in shop area	A. Cutting safety B. Handling of solvents and chemicals 1. Right to Know Law a. absorbtion b. ingestion c. inhalation d. eye safety 2. Safe handling procedures C. Pre-press chemistry D. Darkroom photo chemicals E. Pressroom chemicals	A. Deductive reasoning - written examination B. Vocabulary - identification of solvents C. Spelling D. Functional reading skills 1. Label and precautions 2. Safety instructions 3. Chemical mixing procedures E. Test taking skills F. Oral communications G. Note taking skills H. Following directions	A. Ratio and proportion - mixing darkroom chemicals B. Weights and measurements 1. Liquid 2. Dry	A. Acids 1. Definition 2. Safe handling procedures B. Absorption 1. Definition 2. Protective procedures C. Ingestion 1. Definition 2. Protective procedures D. Inhalation 1. Definition 2. Protective procedures E. Protective devices 1. Rubber gloves 2. Goggles F. Liquid measurement 1. Ounces 2. Pints 3. Quarts 4. Gallons G. Dry measurement 1. Ounces 2. Pounds	A. The student will be able to demonstrate safe handling procedures of solvents B. The student will be able to demonstrate safe handling procedures of x-acto knives C. The student will be able to demonstrate a knowledge of safe chemical and solvent handling procedures upon written examination D. The student will be able to safely mix darkroom chemicals E. The student will be able to identify potentially hazardous chemicals and solvents by reading label precautions

UNIT: INTRODUCTION TO PRINTING

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
	A. Printing history B. Printing procedures C. Printing technology D. Visual communication	A. Functional reading skills - information handouts B. Vocabulary 1. Printing field 2. Printing procedures 3. Printing glossary C. Identifying the basic cycles of the printing industry 1. Identifying the need 2. Creating the image design 3. Reproducing the image design 4. Distributing the printed message D. Note taking skills E. Spelling - vocabulary terms used in the graphic arts F. Test taking skills		A. Applied chemistry 1. Chemical realtionship in theory of photo-offset printing 2. Chemical relationship in gravure process of printing 3. Inks B. Vocabulary 1. Relief printing 2. Lithography 3. Siren printing 4. Gravure C. Organization of printing process 1. Image design 2. Image assembly 3. Image conversion 4. Image career preparation 5. Image transfer	A. The student will be able to discuss the relationship of the different printing procedures B. The student will be able to demonstrate a knowledge of the printing processes upon written examination C. The student will be able to list the different steps of organization upon written examination

UNIT: MEASUREMENT

TOPIC: STANDARD MEASUREMENT

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Understanding standard measurement	A. Reading the ruler B. Utilizing the ruler C. Reducing fractions	A. Functional reading skills 1. Informational handouts 2. Worksheets B. Following directions C. Note taking skills D. Test taking skills E. Vocabulary 1. Numerators 2. Denominators	A. Whole numbers 1. Inch division 2. Addition, subtraction, multiplication and division B. Common fractions 1. Fractional divisions 2. Numerators 3. Denominators 4. Addition 5. Subtraction 6. Multiplication 7. Division C. Measurement - utilization of standard scales D. Decimals 1. Convert decimals to fractions 2. Convert fractions to decimals 3. Add decimals 4. Subtract decimals		A. The student will be able to utilize standard measurement scales to draw guidelines B. The student will be able to measure accurately to within 1/16 inch C. The student will be able to reduce fractions to the lowest form D. The student will be able to divide compound fractions E. The student will be able to reduce fractions F. The student will be able to pass a written test

UNIT: MEASUREMENT - CONTINUED

TOPIC: POINT AND PICA MEASUREMENT SCALES

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Understanding point and pica measurement scales	A. Reading the line gauge B. Type measurement 1. Points 2. Picas 3. Leads C. Em measurement 1. Ems 2. Units D. Inch conversions 1. Points in picas 2. Picas in inch 3. Points in inch	A. Functional reading skills - informational handouts B. Following directions C. Interpretation of diagrams D. Note taking skills E. Test taking skills F. Vocabulary 1. Point 2. Pica 3. Em 4. Lead 5. Type	A. Whole numbers 1. Addition 2. Subtraction 3. Multiplication 4. Division B. Measurement - utilization of printer's measurement 1. Points 2. Picas 3. Ems C. Fractions 1. Addition 2. Subtraction 3. Multiplication 4. Division		A. The student will be able to utilize point and pica measurement scales to draw guidelines B. The student will be able to utilize point measurement type accurately within one point C. The student will be able to convert standard measurement to printer's measurement D. The student will be able to convert printer's measurement to standard measurement E. The student will be able to demonstrate a knowledge of point and picas F. The student will be able to pass a written test

UNIT: TYPESETTING

TOPIC: HAND SET TYPE

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing hand set type composition - hot-type composition	A. Hand typesetting tools 1. Identification 2. Utilization B. California job case 1. Identification 2. Utilization C. Word spacing 1. Identification 2. Utilization D. Line spacing 1. Identification 2. Utilization E. Typesetter's proof marks 1. Identification 2. Utilization	A. Functional reading skills 1. Letters/California job case 2. Informational handouts B. Vocabulary 1. Tool identification 2. Typesetting terms identification 3. Proof reader's marks C. Note taking skills D. Spelling E. Test taking skills 1. California job case 2. Uses of spaces	A. Measurement 1. Points 2. Picas B. Line gauge - use of printer's measuring tools	Applied chemistry 1. Chemical relationship of materials i.e., foundry type 2. Chemical solvents used in cleaning ink from type or type wash	A. The student will be able to identify tool for setting type B. The student will be able to identify tool for measuring points and picas C. The student will be able to demonstrate proper use of tools D. The student will be able to identify part of type E. The student will be able to identify word and line spacing material F. The student will be able to identify type sizes G. The student will be able to set lines of foundry type H. The student will be able to identify type styles I. The student will be able to pass a written test

UNIT: TYPESETTING - CONTINUED

TOPIC: MACHINE SET LINE CASTING TYPE

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing machine set line casting type composition - hot-type composition	A. Ludlow-line casting machine 1. Identification 2. Utilization B. Tools for operation of Ludlow 1. Identification 2. Utilization C. Maintenance of Ludlow 1. Identification of lubricants 2. Utilization	A. Functional reading skills 1. Type identification 2. Informational handouts B. Vocabulary 1. Tool identification 2. Ludlow oeprational terms C. Note taking skills D. Spelling E. Test taking skills	Measurement 1. Line length 2. Type sizes 3. Use of points and picas	Applied chemistry - composition of inguts used in typecasting	A. The student will be able to identify operating procedures B. The student will be able to identify tools used in operation of Ludlow C. The student will be able to demonstrate the proper use of Ludlow D. The student will be able to identify safety rules for operation of Ludlow E. The student will be able to pass a written test

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UNIT: TYPESETTING - CONTINUED

TOPIC: COMPUTER TYPESETTING

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing computer typesetting Varityper 5810 - cold type composition	A. System description 1. Video display 2. Keyboard 3. Diskettes 4. Disk drives 5. Photo unit B. Start up procedure 1. Remove paper cassette 2. Loading paper into supply cassette 3. Installing the paper cassette 4. Care and cleaning of type disks 5. Programming the typesetter C. Entering text 1. Measurement system 2. Type size 3. Line length 4. Linespacing 5. Type style 6. Keyboarding text 7. Justifying type 8. Flush copy 9. Ragged copy D. Typesetting and recording text 1. Typesetting copy 2. Processing typeset copy 3. Proof mode 4. File directory 5. Writing a file E. Editing text 1. Cursor and cursor keys 2. Scrolling 3. Recount function 4. Word erase 5. Inserting copy	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Identification 2. Definitions C. Spelling D. Interpretation of diagrams 1. Informational handouts 2. Keyboard E. Following directions - performance test F. Note taking skills G. Test taking skills	Measurements 1. Standard a. whole numbers b. fractions 2. Printer's a. points b. picas c. ems	Applied chemistry - photographic stabilization paper 1. Developing 2. Fixing	A. The student will be able to define cold/photo type composition B. The student will be able to reproduce an image in cold photographic type composition C. The student will be able to demonstrate an understanding of cold photographic type composition by completing various activities D. The student will be able to identify the keyboard and demonstrate a knowledge of the Varityper 5810 E. The student will be able to pass a written test

UNIT: TYPESETTING - CONTINUED

TOPIC: COMPUTER TYPESETTING

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing computer typesetting Varityper 5810 - cold type composition	A. System description 1. Video display 2. Keyboard 3. Diskettes 4. Disk drives 5. Photo unit B. Start up procedure 1. Remove paper cassette 2. Loading paper into supply cassette 3. Installing the paper cassette 4. Care and cleaning of type disks 5. Programming the typesetter C. Entering text 1. Measurement system 2. Type size 3. Line length 4. Linespacing 5. Type style 6. Keyboarding text 7. Justifying type 8. Flush copy 9. Ragged copy D. Typesetting and recombing test 1. Typesetting copy 2. Processing typeset copy 3. Proof mode 4. File directory 5. Writing a file E. Editing text 1. Cursor and cursor keys 2. Scrolling 3. Recount function 4. Word erase 5. Inserting copy	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Identification 2. Definitions C. Spelling D. Interpretation of diagrams 1. Informational handouts 2. Keyboard E. Following directions - performance test F. Note taking skills G. Test taking skills	Measurements 1. Standard a. whole numbers b. fractions 2. Printer's a. points b. picas c. ems	Applied chemistry - photographic stabilization paper 1. Developing 2. Fixing	A. The student will be able to define cold/photo type composition B. The student will be able to reproduce an image in cold photographic type composition C. The student will be able to demonstrate an standing of cold photographic type composition by completing various activities D. The student will be able to identify keyboard and demonstrate a knowledge of the Varityper 5810 E. The student will be able to pass a written test

UNIT: PASTE-UP

TOPIC: SYMBOLS OF THE TRADE

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing paste-up symbols of the trade	A. Paste-up guidelines - identification of symbols B. Vocabulary 1. Register marks 2. Trim lines 3. Gripper marks 4. Crop marks 5. Interior fold lines 6. Exterior fold lines 7. Interior cut lines 8. Exterior cut lines C. Utilization of mediums 1. Non-photo blue 2. India ink	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Identification 2. Definition C. Spelling D. Following directions - performance test E. Note taking skills F. Test taking skills	A. Measurement - standard 1. Whole numbers 2. Fractions B. Geometry 1. Identify geometric shapes 2. Horizontal lines 3. Vertical lines	Applied chemistry - high contrast film 1. Tonal range 2. Non-photo blue	A. The student will be able to layout a page utilizing paste-up symbols B. The student will be able to demonstrate a knowledge of paste-up symbols upon written examination C. The student will be able to utilize corresponding symbols correctly on paste-up performance test

UNIT: PASTE-UP - CONTINUED

TOPIC: ARTWORK

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing artwork for paste-up	A. Art for reproduction 1. Line copy 2. Continuous tone copy 3. Halftones B. Steps to a layout 1. Thumbnail sketches 2. Rough layouts 3. Comprehensive layouts 4. Mechanicals C. Image generation 1. Hot composition 2. Cold composition a. technical illustration b. clip art and pre-printed type c. strike-on d. continuous tone photography e. photocomposition - computer typesetting	A. Functional reading skills - informational handouts B. Vocabulary 1. Art for reproduction 2. Steps to a layout 3. Image generation C. Spelling D. Note taking skills E. Test taking skills		Applied chemistry 1. Molten metals for type 2. Photographic theory of type composition	A. The student will be able to define line copy, continuous tone copy and halftone B. The student will be able to pass a written test

UNIT: PASTE-UP - CONTINUED

TOPIC: WAX AND RUBBER CEMENT PASTE-UP

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Producing wax paste-ups II. Producing rubber cement paste-ups	A. Wax paste-ups 1. Preferred adhesive a. wax b. hand waxer c. page waxer 2. Utilization of drafting tools 3. Mark-up of board 4. Image generation 5. Alignment of copy 6. Burnishing a. burnisher b. brayer B. Rubber cement paste-ups 1. Utilization methods 2. Utilization of drafting tools 3. Mark up of board 4. Image generation 5. Alignment of copy 6. Burnishing a. burnisher b. brayer 7. Clean up - rubber cement pick-up	A. Functional reading skills 1. Informational handouts 2. Performance test B. Interpretation of diagrams - utilizing rough layouts C. Following directions - performance test D. Note taking skills E. Problem solving F. Test taking skills	A. Measurement 1. Standard a. whole numbers b. fractions 2. Printer's measurement B. Geometry 1. Identify geometric shapes 2. Horizontal lines 3. Vertical lines C. Ratio and proportion - specifying camera instructions	Applied chemistry 1. Adhesives 2. Solvents 3. Flammables 4. Safe use of solvents	A. The student will be able to produce wax paste-ups on illustration board with corresponding symbols of the trade B. The student will be able to list two adhesives for paste-up upon written examination C. The student will be able to identify solutions to assembly of items to be pasted-up within a 5" x 8" area D. The student will be able to demonstrate a knowledge of paste-up adhesives upon written examination E. The student will be able to identify and list three methods in which rubber cement can be used as an adhesive F. The student will be able to utilize a rubber cement pick-up to clean work

UNIT: PROCESS CAMERA

TOPIC: FILM NEGATIVES AND POSITIVES

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Produce film line negatives II. Produce film positives	A. Classify photographic films 1. Emulsions 2. Plastic base 3. Polyester base B. Identify the basic parts of any process camera C. Utilization of basic line photography tools D. Define basic line exposure on a process camera E. Identify the variables in photographic chemical processing F. Define the steps in chemical processing for line photography	A. Functional reading skills 1. Informational handouts 2. Charts 3. Solution instructions 4. Safety instructions B. Vocabulary 1. Identification 2. Definition C. Spelling D. Interpretation of diagrams - informational handouts E. Following directions 1. Performance tests 2. Procedures 3. Chemistry F. Note taking skills G. Test taking skills	A. Ratio and proportion - mixing of chemicals B. Measurement 1. Liquid 2. Dry	A. Applied chemistry 1. Action of developer 2. Action of stop bath - acids B. Physics - light (photo conversion of halide crystals in emulsion)	A. The student will be able to demonstrate a knowledge for processing a line negative upon written examination B. The student will be able to demonstrate safe handling procedures of chemicals C. The student will be able to demonstrate a knowledge of operating the process camera D. The student will be able to identify the difference between film negative and film positive upon written examination

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Produce diffusion transfer	A. Exposing negative material 1. Time 2. Lens opening B. Developing 1. Photo-processor 2. Activator C. Procedures 1. Expose negative 2. Place receiver sheet in contact with negative sheet 3. Place in processor 4. Peel apart D. Safety - chemical handling procedures	A. Functional reading skills 1. Informational handouts 2. Solution instructions 3. Safety instructions B. Vocabulary 1. Identification 2. Definitions C. Spelling D. Following directions 1. Performance test 2. Procedures E. Note taking skills F. Test taking skills	Proportions 1. Enlargements 2. Reductions	A. Applied chemistry - action of activator B. Physics - reflected light absorbed by non-image area	A. The student will be able to set up the process camera to produce a diffusion transfer B. The student will be able to demonstrate a knowledge for shooting and processing a diffusion transfer upon performance testing

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Produce a halftone negative	A. Identify continuous tone copy B. Discuss difference between various types of halftone C. Identify highlight, midtone and shadow areas of continuous tone copy D. Select a method to determine halftone exposure E. Selection of main and flash exposure F. Producing the halftone negative	A. Functional reading skills 1. Informational handouts 2. Charts 3. Data sheets 4. Solution instructions 5. Safety information B. Vocabulary - chemistry C. Spelling D. Note taking skills E. Test taking skills F. Following directions 1. Performance test 2. Procedures 3. Chemistry	A. Ratio and proportion - mixing chemicals B. Measurement 1. Liquid 2. Dry	A. Applied chemistry 1. Action of developer 2. Action of stop 3. Action of fixer B. Physics - light (photo conversion of halide crystals in emulsion	A. The student will be able to explain the difference between contrast, density and tone B. The student will be able to demonstrate a method for determining halftone exposure for a process camera C. The student will be able to demonstrate a procedure for a main and flash exposure D. The student will be able to process a halftone using the time and temperature developing method E. The student will be able to examine and identify the characteristics of a quality halftone negative

UNIT: ITEK 430 CAMERA

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Produce line negatives II. Produce line positives III. Produce halftone negatives IV. Produce veloxes V. Produce autopositive film VI. Produce plates for use on offset presses	A. Line photography 1. Process camera 2. Stat camera 3. Line copy 4. Continuous tone photography and copy 5. Halftones a. screen sizes b. special effect screens 6. Plates a. sizes b. material c. development B. Itek 430 camera 1. Copy board 2. Lens board 3. Lens aperture 4. Material size 5. Material exposure C. Materials 1. Film/paper developer 2. Film/paper fixer 3. Film paper wash 4. Plate developer 5. Plate wash 6. Autopositive film 7. Negative film 8. Positive paper 9. Negative paper 10. Plates	A. Functional reading skills 1. Informational handouts 2. Labels 3. Scales 4. Performance test B. Vocabulary 1. Stat 2. Velox 3. Line conversion 4. Halftone 5. Line copy 6. Continuous tone 7. Plates 8. Etch C. Spelling D. Note taking skills E. Test taking skills F. Following directions 1. Procedures 2. Performance tests	A. Ratio and proportion 1. Reduction of copy 2. Enlargement of copy 3. Calculation of proportional scale B. Measurement 1. Whole numbers 2. Fractions	Applied chemistry 1. Film developer 2. Film fixer 3. Plate developer	A. The student will be able to produce line negatives using the Itek 430 camera B. The student will be able to produce line matte paper positives (stats) using the Itek 430 camera C. The student will be able to produce film positives using the Itek 430 camera D. The student will be able to produce halftone negatives using the Itek 430 camera E. The student will be able to produce veloxes on the Itek 430 camera F. The student will be able to produce plates using the Itek 430 camera G. The student will be able to demonstrate a knowledge of using the Itek 430 upon performance testing and written examination

UNIT: STRIPPING

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Produce single form flat II. Produce multi form flat III. Produce two color flats IV. Produce step and repeat flat V. Produce work and turn flat VI. Produce work and tumble flat	A. Identification of equipment and supplies 1. T-square 2. Triangles 3. Ruler and line gauge 4. Razor blade/x-acto knife 5. Line up table 6. Masking tape 7. Opaque brush 8. Opaque 9. Litho tape B. Steps to layout of masking sheet 1. Lead edge line 2. Gripper margin 3. Plate centers 4. Point at which image begins 5. Corner marks C. Attaching the film negative D. Cutting windows on flat E. Opaquing F. Safety - use of razor blade/ x-acto knife	A. Functional reading skills - informational handouts B. Vocabulary - stripping terms 1. Actinic light 2. Goldenrod 3. Image 4. Scribing 5. Blot C. Following directions 1. Layout masking sheet 2. Attaching negative to masking sheet 3. Performance test D. Note taking skills E. Test taking skills F. Spelling	Measurement 1. Whole numbers 2. Fractions	Applied physics - actinic light	A. The student will be able to strip the following 1. Single form flat 2. Multi form flat 3. Two color flat 4. Step and repeat flat 5. Work and turn flat 6. Work and tumble flat B. The student will be able to identify stripping terms upon written examination

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UNIT: PLATE MAKING

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Produce additive plates II. Produce subtractive plates III. Produce electnostatic plates IV. Produce Itek plates	A. Plate characteristics 1. Material 2. Coatings 3. Style of ends 4. Surface areas 5. Thickness B. Plate exposure - following directions to operate plate maker C. Plate developing 1. Follow step-by-step directions 2. Performance test	A. Functional reading skills - informational handouts B. Vocabulary - platemaking terminology 1. Additive coating 2. Cotton wipes 3. Grain 4. Ink receptive 5. Ink repellent 6. Photo electnostatic 7. Presensitized 8. Subtractive coating C. Spelling D. Following directions E. Note taking skills	Measurement - utilize timer on platemaker	A. Applied chemistry 1. Plate developer 2. Plate preservative B. Applied physics 1. Actinic light 2. Reaction of light to plate	A. The student will be able to produce additive plates B. The student will be able to produce subtractive plates C. The student will be able to produce electnostatic plates D. The student will be able to produce Itek plates E. The student will be able to identify the different plates D. The student will be able to demonstrate a knowledge of plate making upon written examination

UNIT: OFFSET DUPLICATOR OPERATION

TOPIC: MULTILITH 1250 OFFSET DUPLICATOR

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Operate Multilith 1250 offset duplicator 11 x 17	A. Identification of general nomenclature 1. Dampening system 2. Inking system 3. Main printing unit 4. Vacuum feeder 5. Register board and sheet control 6. Delivery system B. Identification of main cylinders of an offset duplicator 1. Plate cylinder 2. Blanket cylinder 3. Impression cylinder C. Selection of inks 1. Oil base 2. Rubber base D. Selection of fountain solution - proper dilution with water 7/1 ratio E. Duplicator operation 1. Identification of parts and switches 2. Plate installation 3. Preparation of feeder 4. Preparation of sheet control and register board 5. Preparation of delivery F. Safety 1. Personal conduct 2. Personal dress	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Acidity 2. Duplicator 3. Emulsification 4. Impression 5. Molleton 6. Receding C. Spelling D. Note taking skills E. Test taking skills F. Deductive reasoning 1. Selection of ink 2. Selection of fountain solution G. Following directions - performance test	Measurement 1. Whole numbers 2. Fractions 3. Ratio	Applied chemistry - ink and water theory	A. The student will be able to set up and install a plate for operation B. The student will be able to produce a printed copy C. The student will be able to demonstrate a knowledge of offset printing upon written examination

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Operate ATF Chief 17 offset duplicator	A. Identification of general nomenclature 1. Dampening system 2. Inking system 3. Main printing unit 4. Vacuum feeder 5. Register board and sheet control 6. Deliver system B. Identification of main cylinders of an offset duplicator 1. Plate cylinder 2. Blanket cylinder 3. Impression cylinder C. Selection of inks 1. Oil base 2. Rubber base D. Selection of fountain solution - proper dilution with water 7/1 ratio E. Duplicator operation 1. Identification of parts and switches 2. Plate installation 3. Preparation of feeder 4. Preparation of sheet control and register board 5. Preparation of delivery F. Safety 1. Personal conduct 2. Personal dress	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Acidity 2. Duplicator 3. Emulsification 4. Impression 5. Molleton 6. Receding C. Spelling D. Note taking skills E. Test taking skills F. Deductive reasoning 1. Selection of ink 2. Selection of fountain solution G. Following directions - performance test	Measurement 1. Whole numbers 2. Fractions 3. Ratio	Applied chemistry - ink and water theory	A. The student will be able to set up and install a plate for operation B. The student will be able to produce a printed copy C. The student will be able to demonstrate a knowledge of offset printing upon written examination

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Operate 350 AB Dick offset duplicator 10 x 15" II. Operate 950 Itek offset duplicator 10 x 15"	A. Identification of general nomenclature 1. Aquamatic system 2. Inking system 3. Main printing unit 4. Vacuum feeder 5. Sheet control 6. Delivery system B. Identification of main cylinders 1. Plate 2. Blanket 3. Impression C. Selection of inks 1. Oil base 2. Rubber base D. Selection of fountain solution 1. Proper dilution with water 15/1 (metal plates) 2. Proper dilution with water 3/1 (electnostatic plates) E. Duplicator operation 1. Identification of parts and switches 2. Preparation of aquamatic system 3. Plate installation 4. Preparation of feeder 5. Preparation of sheet control 6. Preparation of delivery F. Safety 1. Personal conduct 2. Personal dress	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Acidity 2. Aquamatic 3. Duplicator 4. Emulsification C. Spelling D. Note taking skills E. Test taking skills F. Deductive reasoning 1. Selection of ink 2. Selection of fountain solution G. Following directions - performance test	Measurement 1. Whole numbers 2. Fractions 3. Ratios	Applied chemistry - ink and water theory	A. The student will be able to set up and install a plate for operation B. The student will be able to produce a printed copy C. The student will be able to demonstrate a knowledge of offset printing upon written examination

UNIT: OFFSET PRESS OPERATION

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Operate Heidelberg Kora offset press 17½ x 22½"	A. Identification of general nomenclature 1. Dampening system 2. Inking system 3. Main printing unit 4. Specifications 5. Feeding system 6. Delivery system B. Identification of cylinders on the Heidelberg Kora 1. Plate 2. Blanket 3. Impression C. Identification of cylinder packings 1. Plate packing 2. Blanket packing 3. Compression cylinder packing D. Selection of ink 1. Oil base 2. Rubber base E. Selection of and mixture of fountain solution 1. 3M fountain concentrate 2. Gum F. Press operation 1. Location of parts and switches 2. Plate installation 3. Preparation and adjustment of feeder and side guards 4. Preparation of delivery system G. Safety	A. Functional reading skills 1. Informational handouts 2. Performance testing B. Vocabulary 1. Single color 2. Sheet fed rotary press 3. Packing 4. Undercut 5. Micrometer C. Spelling D. Note taking skills E. Test taking skills F. Following directions - performance test	Measurement 1. Whole numbers 2. Fractions 3. Ratios 4. Decimals	Applied chemistry - ink and water theory of offset process	A. The student will be able to set up the Heidelberg Kora and install plate for operation B. The student will be able to produce a printed copy C. The student will be able to demonstrate a knowledge of the offset printing process upon written examination

UNIT: PLATEN PRESS OPERATION

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Operate Heidelberg platen press 10 x 15"	A. Identification of general nomenclature 1. Main frame 2. Rotating drum 3. Platen 4. Feeding mechanism B. Identification of pre-press operations - lock-up C. Identification of operating controls 1. Face guard 2. Starting lever 3. Suction button 4. Impression collar 5. Impression lever D. Sequence of operation 1. Lock-up form 2. Oil press 3. Placing of packing 4. Inking the press 5. Placing form on the press 6. Adjusting feeder 7. Adjusting sugler feet 8. Impression 9. Adjusting delivery table 10. Running the job 11. Wash up E. Selection of inks 1. Oil base 2. Rubber base F. Safety 1. Personal conduct 2. Personal dress	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Chase 2. Lock-up 3. Furniture 4. Reglet 5. Quoins 6. Gripper 7. Packing 8. Register 9. Knurled 10. Jogger C. Spelling D. Note taking skills E. Test taking skills F. Following directions - performance test	Measurement 1. Whole numbers 2. Fractions		A. The student will be able to lock-up form B. The student will be able to set up the press for operation C. The student will be able to produce a printed copy D. The student will be able to demonstrate a knowledge of letter press printing upon written examination

UNIT: FINISHING OPERATIONS

TOPIC: PAPER CUTTER

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Perform on the paper cutter	A. Paper cutter safety 1. Personal conduct 2. Personal dress 3. Safety switches B. Identification of Challenge 3½ paper cutter 1. Location of operating switches 2. Operation of paper cutter C. Cutting layout	A. Functional reading skills 1. Information ahndouts 2. Perforamnce test B. Vocabulary 1. Finishing 2. Cutting 3. Guillotine cutter 4. Lever cutter C. Spelling D. Note taking skills E. Test taking skills F. Following directions - performance test	Measurement 1. Whole numbers 2. Fractions		A. The student will be able to follow a cutting layout and produce paper cut to proper sizes B. The student will be able to demonstrate a knowledge of the paper cutter upon written examination

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Perform folding operations on automated folding machinery	A. Identification of folders 1. Baum folder 2. Multi folder B. Identification of folds 1. Letter fold 2. Accordian fold 3. French fold 4. Right angle fold C. Identification of other processes done of the folder 1. Perforation 2. Scoring 3. Slitting	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Accordian fold 2. French fold 3. Parpinel fold 4. Bone folder 5. Buckle folder C. Spelling D. Note taking skills E. Following directions - performance test	Measurement 1. Whole numbers 2. Fractions		A. The student will be able to use the folder to make various folds as required B. The student will be able to demonstrate a knowledge of the folder upon written examination

UNIT: FINISHING OPERATIONS - CONTINUED

TOPIC: COLLATING

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Perform collating of pages, signatures and forms	A. Identification of collating equipment - Multi 10 station collator B. Basic assembly techniques 1. Manual 2. Semi-automatic 3. Fully automatic	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Assembly 2. Gathering 3. Collating 4. Inserting 5. Signature C. Spelling D. Note taking skills E. Test taking skills F. Following directions - performance test	Measurement 1. Whole numbers 2. Fractions		A. The student will be able to collate pages and signatures manually B. The student will be able to collate pages using the multi collator C. The student will be able to demonstrate a knowledge of the collator upon written examination

UNIT: FINISHING OPERATIONS - CONTINUED

TOPIC: BINDING

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Perform binding operations	A. Identification of different methods of binding 1. Adhesive binding - padding 2. Side binding a. stapling b. looseleaf c. comb B. Identification of equipment used in binding 1. Padding press 2. Stalper 3. Wire stitcher 4. Paper drill 5. Combination punch and comb binding unit C. Equipment safety 1. Personal conduct 2. Personal dress	A. Functional reading skills 1. Informational handouts 2. Performance test B. Vocabulary 1. Adhesive 2. Perfect binding 3. Side binding 4. Saddle binding C. Spelling D. Note taking skills E. Test taking skills F. Following directions - performance test			A. The student will be able to accomplish different binding methods using the following equipment 1. Padding press 2. Stapler 3. Wire stitcher 4. Paper drill 5. Combination punch and comb binding unit B. The student will be able to demonstrate a knowledge of binding methods upon written examination

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